



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,314	04/24/2001	Keith Clark	LINCP103US	6029

7590 08/24/2006
Himanshu S. Amin
Amin & Turocy, LLP
National City Center
1900 E. 9th Street, 24th Floor
Cleveland, OH 44114

EXAMINER

BHATTACHARYA, SAM

ART UNIT	PAPER NUMBER
----------	--------------

2617

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/841,314

Applicant(s)

CLARK ET AL.

Examiner

Sam Bhattacharya

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-12, 20, 22 and 25-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12, 20, 22 and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/10/06 has been entered.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 7-12, 22, 25, 27, 28, 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Blankenship (US 6,624,388).

Regarding claim 7, Blankenship discloses a welding system, including a first welding cell including at least one welding node 20, 24, 28, 304 having a wireless communications interface 68; and, at least one other welding cell 20, 24, 28, 30, 304, 310 including at least one welding node having a wireless communications interface 68 wherein the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly with each other via a frequency adjusting wireless communication protocol, and at least one factory control by a local factory Intranet that retains weld procedures for the first welding cell and the at least one other welding cell. See FIGS. 1 and 2, col. 7, lines 19-32, col. 8, lines 16-47 and col. 17, lines 24-48.

Regarding claim 8, Blankenship discloses that the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly utilizing one of Bluetooth, ConnexRF and point-to-multipoint short-range RF (radio frequency) format. See col. 6, line 54 – col. 7, line 18.

Regarding claim 9, Blankenship discloses the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly utilizing Bluetooth format via at least one of RFComm, OBEX, Service Discovery Protocol and logical link control and adaptation protocols. See col. 6, line 54 – col. 7, line 18.

Regarding claim 10, Blankenship discloses that the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell are one of a power source, a gas controller, a wire feeder, a contact tip, a dresser, a gas mixer, a gas sneezer, a gas controller, a clamp actuator, a robot arm/beam/torch manipulator, a laser seam tracker, a wire drive and gun, a water cooler, a welder, a part handler, a torch travel and a user control. See col. 3, lines 47-63.

Regarding claim 11, Blankenship discloses that the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly utilizing a format that provides frequency spread spectrum hopping or direct sequence spread spectrum. FIGS. 1 and 2, col. 7, lines 19-32 and col. 8, lines 16-47.

Regarding claim 12, Blankenship discloses that information communicate between the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell is at least one of weld procedures, parameters, diagnostic information,

error logs, machine metrics, system metrics, specifications, manuals, machine enhancements, files for specific user application and sensor feedback. See col. 3, lines 11-25.

Regarding claim 22, Blankenship disclose a method for providing wireless communications in a welding system including generating an RF field around a first welding node; generating an RF field around at least one other welding node; establishing communication between the first welding node and the at least one other welding node via a frequency adjusting wireless communication protocol; the at least one other welding node receiving information wirelessly from the first welding node, the at least one other welding node transmitting information wirelessly to the first welding node; and storing information communicated between the first welding node and the at least one other welding node in a central location 190. See FIGS. 1-4, col. 7, lines 19-32, col. 8, lines 16-47 and col. 9, line 63 – col. 10, line 17.

Regarding claim 25, Blankenship discloses a wireless signal for communicating welding information, including a first welding node having a wireless communications interface adapted to communicate via a wireless signal utilizing a frequency adjusting wireless communication protocol; at least one other welding node having a wireless communications interface adapted for wireless communication with the first welding node via the wireless signal; and a server having a wireless communications interface that maintains information associated with the first welding node and the at least one other welding node. See FIGS. 1-4, col. 7, lines 19-32, col. 8, lines 16-47 and col. 9, line 63 – col. 10, line 17.

Regarding claim 27, Blankenship discloses that the at least one factory control transmits at least one of a time of a weld procedure and a change of a weld procedure wirelessly to the first welding cell and the at least one other welding cell. See col. 17, lines 39-48.

Regarding claim 28, Blankenship discloses that the at least one factory control retrieves information from the first welding cell and the at least one other welding cell and initiates an action based upon the retrieved information. See col. 11, line 64 – col. 12, line 23.

Regarding claim 30, Blankenship discloses that the maintained information is at least one of weld procedures, parameter, diagnostic information, error logs, machine metrics, system metrics, specifications, manuals, machine enhancements, files for specific user application and sensor feedback. FIGS. 1 and 2, col. 7, lines 19-32 and col. 8, lines 16-47.

Regarding claim 31, Blankenship discloses that the server is a repository of weld procedures for the factory. See col. 10, lines 1-7.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 20, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blankenship in view of Ivkovich (US 6,583,386).

Regarding claims 20 and 29, Blankenship discloses a method for providing wireless communication in a welding system including generating an RF field around at least one welding node 20, 24, 28, 304; generating an RF field around a wireless communications device; establishing communication between the wireless communications device and the at least one welding node via a frequency adjusting wireless communication protocol; receiving information via the wireless communications device from the at least one welding node; and, transmitting

information to the at least one welding node from the wireless communications device. See FIGS. 1 and 2, col. 7, lines 19-32 and col. 8, lines 16-47.

Blankenship fails to disclose placing at least one of the welding nodes into a fail safe condition if a communications error threshold has been exceeded and continuing the weld process if the threshold has not been exceeded.

However, in an analogous art, Ivkovich discloses a method and system for weld monitoring and tracking in which a welding node is placed into a fail safe condition if the communications error threshold has been exceeded the weld process is continued if the threshold has not been exceeded. See col. 18, lines 12-50. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system in Blankenship by including this feature taught in Ivkovich for the purpose of providing time to correct any defects any defects in the weld procedure due the communications error threshold being exceeded.

Regarding claim 26, Blankenship discloses a welding system, including means for a first welding node to wirelessly communicate utilizing a frequency adjusting wireless communication protocol; and, means for an Nth welding node to wirelessly communicate information with the first welding node wherein the information includes at least one of weld procedures, parameters, diagnostic information, error logs, machine metrics, system metrics, specifications, manuals, machine enhancements, files for specific user application and sensor feedback. FIGS. 1 and 2, col. 7, lines 19-32 and col. 8, lines 16-47.

Blankenship fails to disclose monitoring a communications error threshold and placing at least one of the welding nodes into a fail safe condition if a communications error threshold has been exceeded.

However, in an analogous art, Ivkovich discloses a method and system for weld monitoring and tracking in which a communications error threshold (annunciation/acknowledge error threshold) is monitored and welding node is placed into a fail safe condition if the communications error threshold has been exceeded. See col. 18, lines 12-50. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system in Blankenship by including this feature taught in Ivkovich for the purpose of providing time to correct any defects any defects in the weld procedure due the communications error threshold being exceeded.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Bhattacharya whose telephone number is (571) 272-7917. The examiner can normally be reached on Weekdays, 9-6, with first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sb


GEORGE ENG
SUPERVISORY PATENT EXAMINER